

(12) PETTY PATENT
(19) AUSTRALIAN PATENT OFFICE

(11) Application No. AU 199957133 B3
(10) Patent No. 715883

(54) Title

Retaining member for a cot

(51) International Patent Classification(s)

A47D 013/02

A47D 013/06

A47D 007/00

(21) Application No: 199957133

(22) Application Date: 1999.11.01

(43) Publication Date : 2000.02.10

(43) Publication Journal Date : 2000.02.10

(45) Granted Journal Date : 2000.02.10

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ABSTRACT

A retaining member (22) for a cot, the cot having a substantially vertically extending corner post (20) over which a fabric sidewall (14) extends, the corner post (20) being substantially cylindrical and having an outer surface with a radius of curvature; the retaining member (22) comprising an elongate, substantially cylindrical tube having a tube wall (24) and a substantially cylindrical hollow interior (26) of a radius of curvature no greater than the radius of curvature of the corner post (20), the tube walls (24) having a longitudinally extending slot (28) therein of substantially constant width, the slot (28) extending for the full length of the tube wall (24); the retaining member (22) being adapted to be placed over and to at least partially surround the corner post (20) and the fabric sidewall (14) thereover.

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AUSTRALIA

Patents Act 1990

ORIGINAL
COMPLETE SPECIFICATION
PETTY PATENT

Invention Title: Retaining Member For A Cot

The following statement is a full description of this invention, including the best method of performing it known to me/us:

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RETAINING MEMBER FOR A COT

Field of the invention

This invention relates to a retaining member for a cot and refers particularly, though not exclusively, to a retaining member for assisting and
5 retaining a fabric sidewall of the cot in relation to a corner post thereof.

Background of the invention

Many cots are produced with an upper peripheral frame, a lower peripheral frame, and vertically extending corner posts. Both the base and side wall of the cot are normally made of a fabric material. The fabric material is secured to the
10 corner posts at the lower end thereof by an appropriate fastening means so as to keep the fabric sidewall to the bottom of the corner post. However, the fabric can wrinkle when passing over the corner post, and this is unsightly. Furthermore, with use, the fabric can slightly stretch and therefore lose tension in passing over the corner posts. This results in a cot which does not perform in accordance with its
15 specifications.

It is therefore an object of the present invention to provide a retaining member for a cot that will assist in retaining a fabric sidewall of the cot under appropriate tension. A further object is to provide a retaining member for a cot which will assist in reducing or covering wrinkles in the fabric sidewall at the
20 corner posts.

Brief description of the invention

With the above and other objects in mind, the present invention provides a retaining member for a cot, the cot having a substantially vertically extending corner post over which a fabric sidewall extends, the corner post being
25 substantially cylindrical and having an outer surface with a radius of curvature; the retaining member comprising an elongate, substantially cylindrical tube having a

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5 tube wall and a substantially cylindrical hollow interior of a radius of curvature no greater than the radius of curvature of the corner post, the tube wall having a longitudinally extending slot therein of substantially constant width, the slot extending for the full length of the tube wall; the retaining member being adapted to be placed over and to at least partially surround the corner post and the fabric sidewall thereover so as to apply pressure to the fabric sidewall to maintain it under tension.

10 Preferably, the tube wall has a hole therethrough at a lower end thereof to allow the passage therethrough of a fastener to enable the retaining member and the fabric sidewall to be secured to the corner post.

Advantageously, the retaining member is of a length substantially equal to the length of the corner post between an upper peripheral frame and a lower foot of the cot.

Description of the drawings

15 In order that the invention may be fully understood there shall now be described by way of non-limitative example only a preferred construction of a retaining member for a cot incorporating the principal features of the present invention, the description being with reference to the accompanying illustrative drawings in which:

20 Figure 1 is a partial three-quarter perspective view of a corner of a cot showing a retaining member of the present invention partially installed; and

Figure 2 is a horizontal cross section of the corner post with the retaining member fitted.

Description of preferred embodiment

25 To refer to the drawings, there is shown part of a cot which has an upper peripheral frame 10, a lower peripheral frame 12, and a fabric sidewall 14 secured

over both the upper frame 10 and lower frame 12 and extending therebetween. The upper frame 10 has a corner fitting 16 and the lower frame 12 has a corner foot 18. Extending between the corner fitting 16 and foot 18 and securely attached to each of them is a corner post 20. The fabric sidewall 14 passes over the corner post 20. This is of a form of cot of known construction.

The corner post 20 is generally somewhat cylindrical and is normally hollow. It has a radius of curvature to its outer surface which is known.

Adapted to pass over the corner post 20 is a retaining member 22 which is a generally cylindrical tube. The retaining member 22 has a tube wall 24 and a substantially cylindrical hollow interior 26. The hollow interior 26 has a bore wall 28, the radius of curvature of which is no greater than the radius of the outer surface of the corner post 20.

Extending for the full length of retaining member 22 is a slot 28 which extends longitudinally of the retaining member 22, the slot 28 being substantially constant width along its length.

Preferably, the material of the retaining member 22 has a degree of elasticity. To be placed over the corner post 20 requires the slot 28 to be enlarged at one end thereof by flexing the tube wall 24. In this way the slot 28 is increased in size to approximately the diameter of the corner post 20 together with the thickness of the fabric sidewall 14. It then engages over the corner post 20 as is clear from Figure 2. This is similar to a snap fit. By having the radius of borewall 28 no greater than the radius of corner post 20, the tube wall 24, when fitted, is under internal stresses which are attempting to reduce the width of slot 28 to its normal size. This causes the edges of tube wall 24 to apply pressure to the fabric sidewall 14 immediately adjacent the corner post 20.

As such, the retaining member 22 forces the fabric sidewall 14 around the corner post 20 and thus holds it tightly in relation to the corner post 20. This either reduces or covers any wrinkles at the corner post 20 as the fabric 14 passes

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thereover.

Furthermore, by the action of the tube wall 24 on either side of the slot 28 on the fabric sidewall 14 the fabric sidewall 14 is held under tension to thus assist in retaining a tight fitting sidewall for the cot.

- 5 The retaining member 22 extends for the full height of the corner post 20 from the foot 18 to the corner member 16. At its lower end 30 the retaining member 22 may have an opening 32 therethrough to enable a screw 34 or other similar fastener to pass therethrough and into the corner post 20. This assists in holding the fabric sidewall 14 at the lower end of the corner post 20 and prevents
10 it from sliding vertically upwardly on the corner post 20. It will also assist in retaining the lower end 30 of the retaining member 22 in place in relation to the corner post 20. However, by virtue of the elasticity of the material of the retaining member 22, and the "snap fitting" engagement over the corner post 20, it would generally be releasably retained around the corner post 20 unless deliberately
15 removed.

- To place the retaining member 22 over the corner post 20 the lower end of 30 is firstly manipulated to expand the slot 28. It is then placed over the lower end of the corner post 20. By following the arcuate form shown in Figure 1, the corner post 20 will by itself force this slot 28 open along its length and thus the
20 retaining member 22 can be placed over the entire length of the corner post 20.

Whilst the retaining member 22 may be made of any suitable material, a somewhat elastic material such as polyvinylchloride, or other similar plastics material, may be used.

- Whilst there has been described in the foregoing description a preferred
25 construction of a retaining member for a cot incorporating the principal features of the present invention, it will be understood by those skilled in the technology concerned that many variations or modifications in details of design or construction may be made without departing from the present invention.

It will be understood that the invention disclosed and defined herein extends to all alternative combinations of two or more of the individual features mentioned or evident from the text or drawings. All of these different combinations constitute various alternative aspects of the invention.

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THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS

- 1 A retaining member for a cot, the cot having a substantially vertically
extending corner post over which a fabric sidewall extends, the corner post
being substantially cylindrical and having an outer surface with a radius of
curvature; the retaining member comprising an elongate, substantially
cylindrical tube having a tube wall and a substantially cylindrical hollow
interior of a radius of curvature no greater than the radius of curvature of
the corner post, the tube wall having a longitudinally extending slot therein
of substantially constant width, the slot extending for the full length of the
tube wall; the retaining member being adapted to be placed over and to at
least partially surround the corner post and the fabric sidewall thereover so
as to apply pressure to the fabric sidewall to maintain it under tension.
- 2 A retaining member as claimed in claim 1, wherein the tube wall has a hole
therethrough at a lower end thereof to allow the passage therethrough of a
fastener to enable the retaining member and the fabric sidewall to be
secured to the corner post.
- 3 A retaining member as claimed in claim 1 or claim 2, wherein the retaining
member is of a length substantially equal to the length of the corner post
between an upper peripheral frame and a lower foot of the cot.

IGC (Australia) Pty Ltd
By their Registered Patent Attorneys
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3 December, 1999



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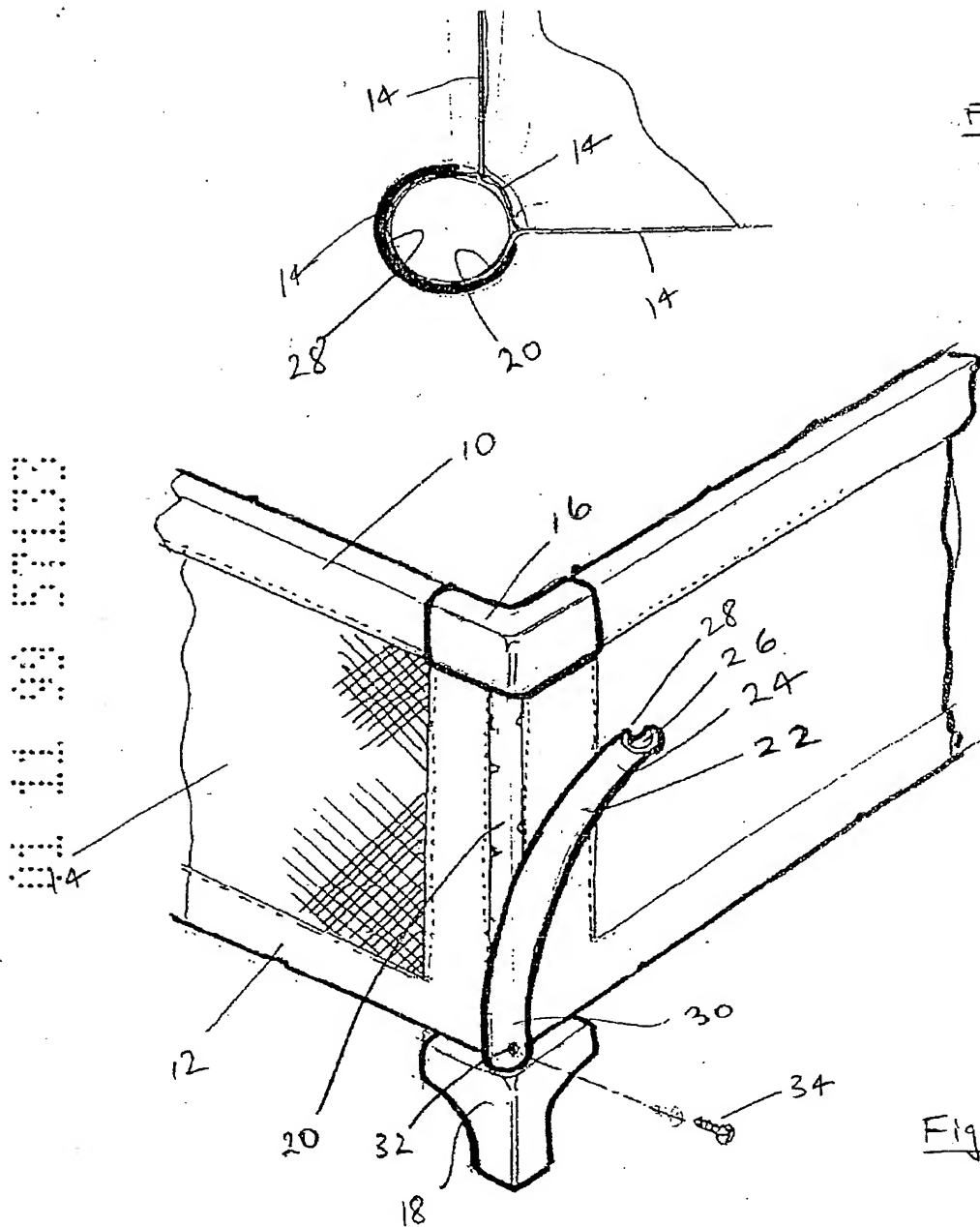


Figure 2

Figure 1